



OEG Ref 13-302

October 23, 2014

Loriana Ranch  
Rob Gillespie  
345 Tally Ho Road  
Arroyo Grande, CA 93420

Subject: Roadway Safety Analysis and Sight Distance for Site Access  
Located at 490 W. Ormonde Road (DRC2012-00086)

Dear Mr. Gillespie:

Orosz Engineering Group, Inc. (OEG) has prepared the following letter report for a sight distance analysis and Roadway Safety Analysis (RSA) relative to the subject project. We have reviewed the project information provided by Mandi Pickens of Kirk Consulting, are familiar with the study area and the County of San Luis Obispo procedures and requirements for sight distance analysis. A site visit was conducted to document the actual field conditions, lane geometry, sight distance and vehicle speed. Based on the project description, the County of San Luis Obispo has also requested that a RSA be conducted near the primary project driveway along Ormonde Road. The following report summarizes our findings.

#### **PROJECT LOCATION**

The project site is located along the northeastern side of Ormonde Road to the west of Old Oak Park Road in southern San Luis Obispo County near Arroyo Grande. Currently there are two formal access points to the site (Driveways A and B) shown on Exhibit 1), which provide primary and secondary access options.

This section of Ormonde Road contains two travel lanes, one in each direction. The travel lanes are 10-11 feet wide. The existing traffic volumes are extremely low (265 ADT) based on the most recent traffic counts provided by the County. Based on OEG field observations, the average vehicle speed is 30 MPH (see Exhibit B).

The project proposed to hold up to 40 events annually ranging from 250 to 400 person events:

- 10 events with no more than 400 attendees
- 20 events with no more than 350 attendees
- 10 events with no more than 250 attendees

### PROJECT TRIP GENERATION

The project trip generation is estimated based on the number of attendees at each event divided by the average vehicle occupancy, multiplied by two trips (one each way). Based on the proposed number of events, the project trip generation follows:

Number	Size	Vehicle Occupancy	Total Peak Trips
10	400	2.5	320
20	350	2.5	280
10	250	2.5	200

The special events will occur during non-peak hours. The trip patterns are very focused. Prior to an event, half of the total event traffic generally arrives within a two hour window, with the majority of the traffic within the last 30-45 minutes before the event. At the end of the event, the remaining half of the traffic is expected to leave the venue over a one hour period and is more spread out. Based on these arrival and departure patterns, the special event project trips will not have a significant impact on safety nor impact current circulation patterns.

Based on the infrequent number of events annually (approximately 1 per week), average event traffic volume of 270 ADT and the existing 265 ADT, the project average daily traffic volume would be less than 400 ADT on the average.

### ROADWAY SAFETY ANALYSIS

The County of San Luis Obispo has a policy to define the information required to complete a roadway safety analysis (RSA) based on the number of peak hour trips developed by a project. Since the project will schedule events not to coincide with the traditional peak hours, a conservative analysis will assume 50% of the total peak trips to occur during a peak hour. For a general public project such as the proposed project and with the trip generation estimated for the project (up to 160 special event trips for this project), the RSA requirements include:

#### ROADWAY IMPROVEMENTS –

Standard – ¼ mile from the entrance toward the nearest intersection (southerly for the project site) to A-1 (rural) standards

Analysis - From the main site access to the south, Ormonde Road has 22 feet of pavement with four-foot graded shoulders. The existing cross-section of Ormonde Road meets the requirement of the A-1b (less than 400 ADT roadway) roadway cross-section. Therefore, roadway improvements are not required.

#### SAFETY ANALYSIS –

Standard - Evaluate the collision rate for the primary access roadways within one (1) mile of the primary site entrance. Recommend improvements to reduce the potential for the collision patterns that are identified.

Analysis – The California Highway Patrol (CHP) San Luis Obispo Office was contacted to obtain data for any collisions within the vicinity of the project site over the past three years. Based on the data provided by the CHP, one collision on Ormonde Road, near Price Canyon Road was identified. The CHP collision data is enclosed at the rear of this letter report. Based on one collision over a three year period of time, the collision rate is less than significant. No collision safety issues were identified and no improvements are required.

**SIGHT DISTANCE EVALUATION**

The County of San Luis Obispo Public Works Department has stopping sight distance standards for driveways and intersections on County roads. Based on the travel speeds on W. Ormonde Road (30-35 MPH), the required stopping sight distance is 250 feet. Due to the low number of vehicles using the roadway, the vehicle travel speeds to be used for the sight distance analysis was approximately 5 MPH higher than the “pace” of traffic (10 MPH range with the highest number of vehicles traveling within that range). The pace for this section of Ormonde Road was found to be 27-36 MPH. The approach speed for use in this analysis was assumed to be 40 MPH. The design stopping sight distance for this analysis is 300 feet. The actual stopping sight distance available is summarized in the following table, based on field measurements collected at the two existing driveway access locations.

Location	Required Stopping Sight Distance/ Approach Speed	Looking to Drivers Left	Looking to Drivers Right	Comments
Existing Driveway A	300' (40 MPH)	500'	500'	Ok to left. Ok to right.
Existing Driveway B	300' (40 MPH)	500'	500'	Ok to left. Ok to right.

As seen in the table above, the driveway conditions at the existing and proposed secondary access locations all meet the County sight distance standards. In fact, the available sight distance is conservative and can support vehicle travel speeds of up to 50 MPH.

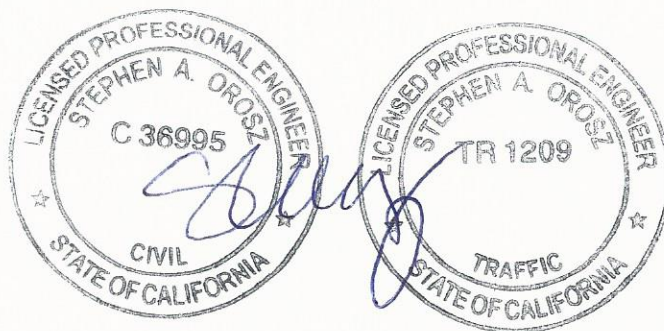
We hope that this information is helpful in the design of the site access. Should you have any questions, feel free to contact us.

Sincerely,

*Stephen A. Orosz*

Stephen A. Orosz, P.E.  
Orosz Engineering Group, Inc.

Enclosures



## Steve Orosz

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**From:** Opray, Jim@CHP <JOpray@chp.ca.gov>  
**Sent:** Tuesday, October 07, 2014 9:00 AM  
**To:** Steve Orosz  
**Subject:** RE: Collision Information for Roadway Safety Audit

Hi Steve,

In your e-mail you requested information on "Oromode Road". I can't find anything with that name. The closest match would be Ormonde Rd.

The only traffic collision on Ormonde Rd. within the last three years, was on 4/20/2011, non injury, GPS 35.17813 / - 120.62080. This was near the intersection with Price Canyon Rd.

Jim Opray

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**From:** Steve Orosz [mailto:steve@oegsite.com]  
**Sent:** Monday, October 06, 2014 7:37 PM  
**To:** Opray, Jim@CHP  
**Subject:** FW: Collision Information for Roadway Safety Audit

Officer Opray,

Thanks for taking my call today. I have attached the email string with the original request to Officer Long in the Templeton CHP office.

If you can provide any collision information for Oromode Road, I would appreciate it. See the yellow highlighted area below. Just below the highlighted text message is the data Officer Long provided previously. If you can provide similar information, that would be great.

Thank you

Stephen Orosz PE

**OROSZ ENGINEERING GROUP, INC.**

PO Box 1262

SANTA YNEZ, CA 93460

**805-680-1586 cell (best)**

email: [steve@oegsite.com](mailto:steve@oegsite.com)

Web: [www.oegsite.com](http://www.oegsite.com)

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**From:** Steve Orosz  
**Sent:** Thursday, October 02, 2014 7:15 AM  
**To:** Long, William@CHP  
**Subject:** Re: Collision Information for Roadway Safety Audit

Thank you.

Thanks. Steve Orosz  
Sent from my iPhone

On Oct 2, 2014, at 7:14 AM, Long, William@CHP <[WLong@chp.ca.gov](mailto:WLong@chp.ca.gov)> wrote:

Their Office number is 593-3300. I'm not sure who is doing their Accident Investigation Review duties these days.

Bill  
Officer W. V. Long, #14465  
TEMPLETON AREA 740  
101 Duncan Road  
Templeton, CA 93465  
(805)434-1822  
(805)434-2197 FAX  
(805)434-4193 Foreign Registration

[wlong@chp.ca.gov](mailto:wlong@chp.ca.gov)

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*Safety, Service & Security*

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**From:** Steve Orosz [<mailto:steve@oegsite.com>]  
**Sent:** Wednesday, October 01, 2014 10:06 PM  
**To:** Long, William@CHP  
**Subject:** RE: Collision Information for Roadway Safety Audit

Thanks Bill. Do you have a contact number or person in that office? If not, I will call to find out.

Thanks  
Stephen Orosz PE  
**OROSZ ENGINEERING GROUP, INC.**  
PO BOX 1262  
SANTA YNEZ, CA 93460

**805-680-1586 cell (best)**

email: [steve@oegsite.com](mailto:steve@oegsite.com)

Web: [www.oegsite.com](http://www.oegsite.com)

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**From:** Long, William@CHP [<mailto:WLong@chp.ca.gov>]  
**Sent:** Wednesday, October 01, 2014 7:39 AM  
**To:** Steve Orosz  
**Subject:** RE: Collision Information for Roadway Safety Audit

Hi Steve,

That would be the San Luis CHP Office area of responsibility. I would not have any information on collision information for that area. If you contact their Office and speak with the Accident Investigation Review Officer they should be able to assist you. Of course you would want to let them know that the info. is for the County of SLO.

Take Care,

Bill

Officer W. V. Long, #14465

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**From:** Steve Orosz [<mailto:steve@oegsite.com>]  
**Sent:** Tuesday, September 30, 2014 9:31 PM  
**To:** Long, William@CHP  
**Cc:** [mmatson@co.slo.ca.us](mailto:mmatson@co.slo.ca.us); Marshall, [Glenn@CO.SLO](mailto:Glenn@CO.SLO)  
**Subject:** RE: Collision Information for Roadway Safety Audit

Officer Long,

Good morning.

I have another request by the County to obtain collision data for a roadway segment in Southern San Luis Obispo County near Arroyo Grande. We would appreciate similar collision data for the following areas:

Approximately 1 mile northwest and 1 mile southeast of 490 W. Oromode Road (See attached map) (GPS 35.174619 N, 120.607619 W approximate)

There might not be any collisions in the past three years, but the county has asked us to check with you on this.

Thank you again for your assistance. If you have any questions, feel free to call me directly.

Thanks

Stephen Orosz PE

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**From:** Long, William@CHP [<mailto:WLong@chp.ca.gov>]

**Sent:** Monday, June 30, 2014 4:26 PM

**To:** Steve Orosz

**Cc:** [mmatson@co.slo.ca.us](mailto:mmatson@co.slo.ca.us); Marshall, [Glenn@CO.SLO](mailto:Glenn@CO.SLO)

**Subject:** RE: Collision Information for Roadway Safety Audit

Mr. Oroszo,

In response to your inquiry here is what I was able to obtain from our data base.

There have been four collisions since January 2010, two on Cross Canyon(s) and two on Pleasant Road. No Fatalities.

One minor injury (#3, bruise to hand, not transported).

The locations are as follows;

1. Cross Canyons Road 70 feet east of Indian Valley Road (GPS 35.75546 / -120.68501)  
10/31/2012 1615 hours PCF 22107 VC, non injury
2. Cross Canyon Road 0.4 miles east of Lowes Canyon Road (GPS 35.75183 / -120.64187)  
03/06/2012 0858 hours PCF 22107 VC, non injury
3. Pleasant Road 0.7 miles north of Estrella Road (GPS 35.72762 / -120.62781)  
04/23/2012 1720 hours PCF 22107 VC, 1 minor injury
4. Pleasant Road 178 feet south of Cross Canyon Road (GPS 35.74631 / -120.62244)  
10/17/2011 1555 hours PCF 23152 VC, non injury DUI collision

Let me know if this is enough information or if you need further.

Bill

Officer W. V. Long, #14465

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**From:** Steve Orosz [<mailto:steve@oegsite.com>]  
**Sent:** Monday, June 30, 2014 3:39 PM  
**To:** Long, William@CHP  
**Cc:** [mmatson@co.slo.ca.us](mailto:mmatson@co.slo.ca.us)  
**Subject:** Collision Information for Roadway Safety Audit

Officer Long-

Thanks for taking my call today. In conjunction with a traffic study that we are preparing to address the County's traffic safety concerns for a land development project, they have requested that we obtain collision data for the roadways nearest the project site. The project site is located at 6385 Cross Canyon Road in San Miguel.

The scope of the roadway safety analysis is one mile from the project site. The two roadways that are in question are Cross Canyon(s) Road between the site and just before the curved section near 35 degrees 44 minutes 49.69 seconds N, 120 degrees 37 minutes 59.50 seconds W. Also, we are looking at Pleasant Road from Cross Canyon Road, south about 0.6 miles.

The collision data that we are looking for includes the following data:

Date  
Time of day  
Primary collision factor  
Type of Collision  
# injuries  
Fatality?

If you can provide any data for these sections of roadways, we would appreciate it.

If you have any questions or need confirmation from the County, feel free to contact me or Michelle Matson at the SLO County Public Works.

Thanks

Stephen Orosz PE  
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